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October 2, 2006
M&A #06-114-01

Ms. Karen Adler
PlanCom, Inc.
302 State Place
Escondido, CA 92029

Re: Biological Impact Analysis Letter Report for the SD-06894 Scott Residence T-Mobile® Wireless Project (County of San Diego Case Number MUP 03-124)

Dear Karen:

SUMMARY OF FINDINGS

Merkel & Associates, Inc. (M&A) has prepared this biological impact analysis letter report for the proposed SD-06894 Scott Residence T-Mobile® Wireless Project (County of San Diego Case Number MUP 03-124).

The property is located within the Metro-Lakeside-Jamul Segment of the South County MSCP Subarea Plan, adopted October 22, 1997, in a pre-approved mitigation area (PAMA).

The majority of the property was burned in the 2003 San Diego fires, and the moderately open canopy of southern mixed chaparral is still showing some signs of this burn; however, the current overall quality of the vegetation is considered to moderate to high based on the higher component of native species re-emerging within the habitat. In addition, although the property does not function as a wildlife corridor, the overall value of the wildlife habitat on the property is considered to be high based on the direct connectivity to adjacent native habitat to the north, south, and west.

One sensitive plant species, San Diego viguiera (*Viguiera laciniata*), was identified within the study area during the biological surveys, designated as rare on the California Native Plant Society (CNPS) List 4 and as sensitive on the County of San Diego Sensitive Plants List D. Three sensitive animal species were identified during the biological surveys: coastal western whiptails, designated as a California Special Concern Species by the California Department of Fish and Game (CDFG) and as sensitive on the County of San Diego Sensitive Animals List (Group B); Cooper's hawk, designated as a California Special Concern Species by the CDFG and as sensitive on the County of San Diego Sensitive Animals List (Group A); and turkey vulture, designated as sensitive on the County of San Diego Sensitive Animals List (Group A).

The proposed project would result in permanent, direct impacts to southern mixed chaparral; however, implementation of habitat-based mitigation should reduce impacts to a level below significance under CEQA, and ensure conformance with the County of San Diego Multiple Species Conservation Program (MSCP) Subarea Plan, Resource Protection Ordinance (RPO), and Biological Mitigation Ordinance (BMO).

INTRODUCTION

PURPOSE

Merkel & Associates, Inc. (M&A) has prepared this biological impact analysis letter report for the proposed SD-06894 Scott Residence T-Mobile® Wireless Project (County of San Diego Case Number MUP 03-124), at the request of Ms. Karen Adler of PlanCom, Inc. on behalf of T-Mobile® Wireless. The purpose of this report is to address the biological comments noted in the County of San Diego 1st Iteration Project Review Letter, dated August 12, 2004.

PROJECT SITE LOCATION

The 5.17-acre property lies within Section 3, Township 16 South, Range 1 East of the San Bernardino Base and Meridian; U.S. Geological Survey 7.5' El Cajon and Alpine, California Quadrangles (Latitude 32° 48' 24.23" N NAD 83, Longitude 116° 52' 29.99" W NAD 83; Universal Transverse Mercator coordinates $^{51}16^{691E}$, $^{36}29^{874N}$ Zone 11) (Figure 1).

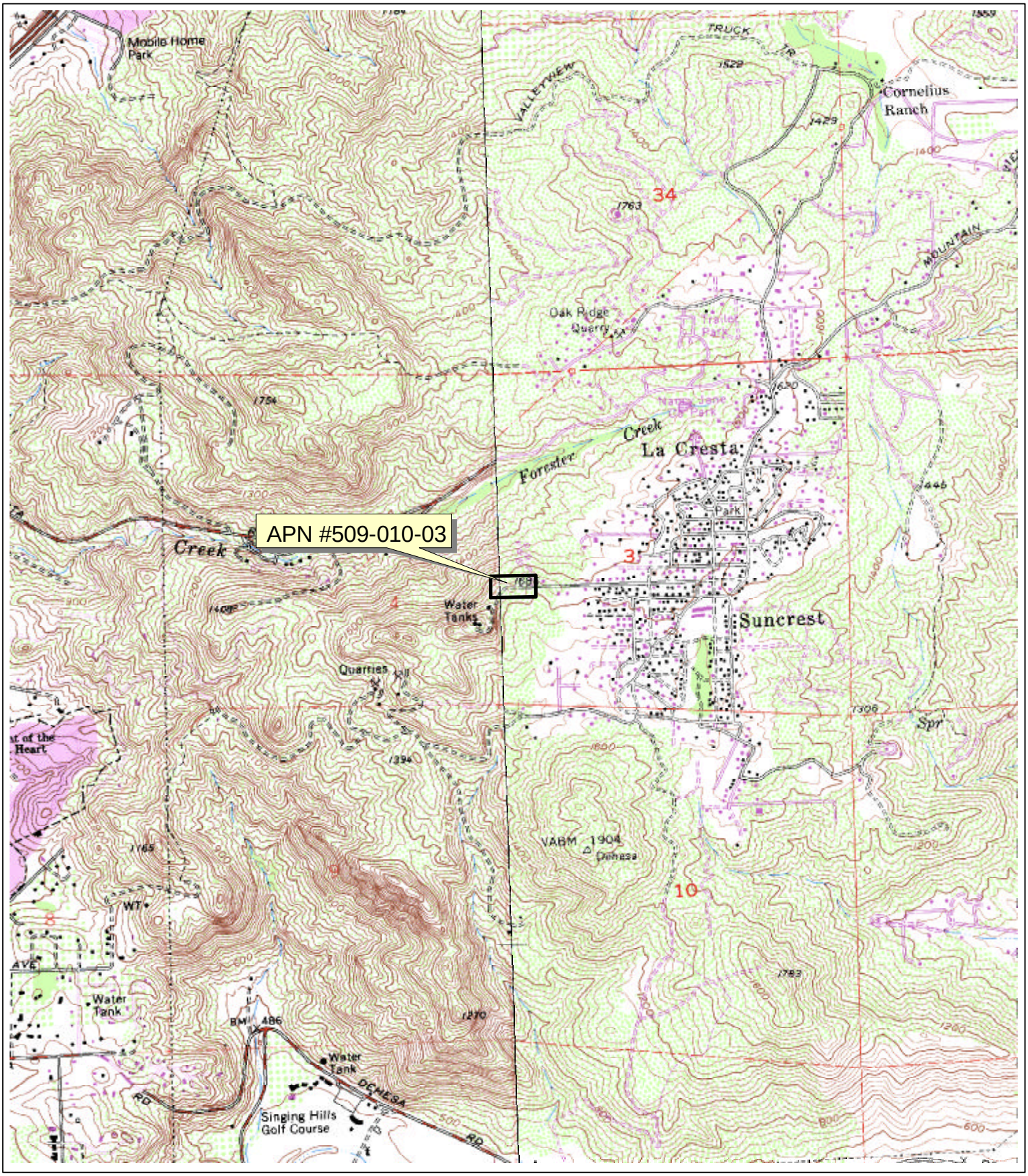
The property is located within an unincorporated area of the County of San Diego, in the Crest-Dehesa Community Plan Area, at 487 Alta Lane, El Cajon, California 92021 (Assessors Parcel Number 509-010-03). The proposed project site is located on the single-family, Scott Residence property, northeast of the existing house and north of Alta Lane prior to the southward curve in the road.

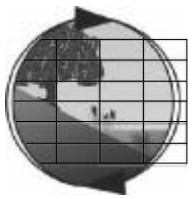
Direct access to the project site is provided via Alta Lane (Thomas Guide map page 1252, G3).

PROPERTY AND PROJECT HISTORY

The County of San Diego issued an initial project application review, scoping letter for a proposed Cingular® wireless facility on the Scott Residence property, dated January 7, 2004, which requested the preparation of a biological letter report and vegetation map. Subsequently, Mooney & Associates prepared a vegetation map for the proposed project site, at the request of ATC Associates, Inc., dated May 26, 2004, and provided a summary letter report in which Mooney & Associates noted: "…this letter is not intended to meet the requirements of the Biological Letter Report as requested by the County of San Diego in their January 7, 2004 scoping letter". The County of San Diego subsequently issued a 1st iteration project review comment letter, dated August 12, 2004, requesting the submittal of a biological letter report, as well as response to additional comments.

The property is currently developed with a single-family residence house, and a mobile Cingular® telecommunications unit is located to the east of the house. The first comment noted in the County of San Diego 1st iteration project review letter states the following information: "On a visit April 30, 2004 to an adjacent project, staff biologist Greg Krzys noted that a portable cellular tower was located on the proposed site west of the single-family residence. This tower was moved to the current site east of the house as noted on a similar visit on May 18, 2004. From pre-2002 aerial photos, there appears to be a pad in the tower's current location. Post-fire 2003 aerial photos, indicate the presence of trees such as those mapped in the vegetation exhibit. However, staff photos taken in May 2004 indicate that an access road and level pad have been cleared of vegetation sometime during the spring of 2004 where the tower is currently located. Please provide evidence





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1" = 2000'

Project Vicinity Map

T-Mobile® Wireless Facility,
SD06894 Scott Residence Project

Source: 7.5' USGS El Cajon and Alpine, CA Quadrangles

Figure 1

that this clearing was permitted." Per a conversation between the M&A field biologist and the property owner during the biological survey, it is believed that Cingular® originally placed this mobile telecommunications unit on the property during the 2003 San Diego fires to aid with communication between fire fighters, and this mobile unit has not yet been retrieved by Cingular®; however, the reasoning for movement of the unit on the property in 2004 is not clearly understood. Per conversations between Karen Adler of PlanCom, Inc., the property owner, and the County, it is currently understood that the County has agreed to waive this comment issue (pers. com. based on September 14, 2006 e-mail from Karen Adler to Diana Jensen).

T-Mobile® now proposes to lease the Scott Residence property, a separate project from the existing mobile Cingular® telecommunications unit located on the property, and M&A has prepared this new biological letter report at the request of PlanCom, Inc., to: 1) incorporate the results of the biological field survey previously conducted on the project site by Mooney & Associates in the spring of 2004; 2) address the comments noted in County of San Diego 1st iteration project review letter dated August 12, 2004; 3) verify the current existing biological resources present or potentially present on the project site; 4) identify impacts to biological resources that could potentially result from implementation of the new proposed T-Mobile project; and 5) recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with the California Environmental Quality Act (CEQA) and the County of San Diego Multiple Species Conservation Program (MSCP) Subarea Plan, Resource Protection Ordinance (RPO), and Biological Mitigation Ordinance (BMO).

PROPOSED PROJECT DESCRIPTION

The proposed project includes the construction and maintenance of a new T-Mobile® Wireless facility.

The facility would consist of a 35-foot high faux pine tree with 12 panel antennas mounted to the structure. Equipment cabinets would be located immediately north of the faux pine tree and would be concealed in an equipment shelter measuring 10 feet by 16 feet, and surrounded by an 8-foot high, tan-colored, block retaining wall. A landscape path with timbers and gravel backfill would be placed along the western side of the equipment shelter, south to Alta Lane, and surrounded with 2, 24-inch box *Pinus coulteri* and *Galvezia* ground cover. A coaxial cable, power line, and telco conduit would be covered in an underground trench running from the equipment shelter, to the faux pine tree, and to an existing utility pole along Alta Lane.

Per the revised County of San Diego FP-2 Fire Policy, dated April 10, 2006, a 30-foot fuel modification zone would be required to be maintained around the equipment shelter (pers. com. based on September 14, 2006 e-mail from Karen Adler to Diana Jensen).

METHODS AND SURVEY LIMITATIONS

SURVEYS CONDUCTED

Since Mooney & Associates conducted a brief biological survey of the property in the spring of 2004, and subsequently prepared a vegetation map and summary letter report documenting the vegetation types present on the property, M&A conducted an updated vegetation ground-truthing survey of the study area in August of 2006 to note any changes to the previously mapped vegetation types and to verify the current existing biological conditions on the project site. As part of the

vegetation ground-truthing survey, M&A also conducted a general biological survey to document the detectable floral and faunal resources currently present on the project site, and determine the presence or potential for presence of sensitive species in the project area.

STUDY AREA DESCRIPTION

In accordance with the County of San Diego's Biological Mapping Requirements, dated June 4, 2002, since the proposed project would affect only a small portion of the Scott Residence property, the study area included only 100 feet beyond all proposed project elements (*e.g.*, faux pine tree, equipment shelter, landscape path, underground telco lines, and 30-foot fuel modification zone).

LITERATURE REVIEW

Existing literature pertaining to the project area was reviewed prior to the initiation of the field investigation. This literature review included: 1) examination of the vegetation map and summary letter report prepared by Mooney & Associates, dated May 26, 2004; 2) a determination of the potential soils types on-site based on the U.S. Department of Agriculture Soil Conservation Service map for the project area; 3) examination of the list of sensitive species with a potential to occur on-site, provided in the County of San Diego scoping letter, dated January 7, 2004; and 4) documentation of California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service (USFWS) Geographical Information System (GIS) records for the project vicinity.

SURVEY DATE, TIME, AND CONDITIONS

M&A biologist Roland A. Sosa conducted vegetation ground-truthing and general biological surveys of the project site (Table 1).

Table 1. Summary of Biological Survey Date, Time, Conditions, and Biologist

Biological Survey	Date	Time	Conditions (start to end)	Biologist
Vegetation Ground Truthing/General Biology	8/29/06	0900 - 1130	Weather: 0% cc Wind: 0-1 BS Temperature: 70°-75° F	Roland A. Sosa
Vegetation Ground Truthing/General Biology	9/22/06	1445 - 1545	Weather: 50%-80% cc Wind: 2-3 BS Temperature: 72° F	Roland A. Sosa

cc = cloud cover; BS = Beaufort Scale; F = Fahrenheit

VEGETATION GROUND-TRUTHING AND GENERAL BIOLOGICAL SURVEY

The entire portion of the study area located on the Scott Residence property was surveyed on-foot; however, the portions of the study area that extended beyond the parcel boundary were visually surveyed only, from the property boundary line.

The current vegetation types within the study area were compared to the previous vegetation map prepared by Mooney & Associates, and any changes were delineated onto a color aerial photograph (flown February 1st and 2nd, 2001) of the project site, with a topographical overlay. The vegetation

types were classified according to the Holland (1986) and Oberbauer (1996) classification system, and were mapped in accordance with the County of San Diego's Biological Mapping Requirements, dated June 4, 2002.

A list of detectable flora and fauna species was recorded in a field notebook. Plant identifications were either resolved in the field or later determined through verification of voucher specimens, and wildlife species were determined through direct observation (aided by binoculars), identification of songs, call notes and alarm calls, or by detection of sign (*e.g.*, burrows, tracks, scat, etc.). In addition, a directed search for the list of sensitive species with a potential to occur on-site was conducted, and the potential for these species to occur within the project area was assessed in the field based on the current existing biological conditions. The scientific and common names utilized for the floral and faunal resources were noted according to the following scientific nomenclature: flora, Hickman (1993) and Baldwin *et al*. (2004); butterflies, Opler and Wright (1999); amphibians and reptiles, Crother *et al.* (2001 and 2003); birds, American Ornithologists' Union (1998 and 2005); and mammals, Wilson and Reeder (1993).

Any unidentified flora or fauna species from the field survey were keyed out upon return to the office and recorded in the field notebook, and the data from the field maps were digitized into ArcView GIS version 3.2a. The information collected from the field survey was then documented and analyzed in this biological letter report, written in accordance with the County of San Diego's Biological Survey Report Guidelines. Please note that efforts were made to comply with the County of San Diego's new Survey, Report Format, Content, and Mapping Requirements for Biological Resources, dated September 26, 2006; however, since the majority of this project was completed prior to issuance of these new requirements, some inconsistencies may occur within this report.

SURVEY LIMITATIONS

Biological inventories are generally subject to various survey limitations. Depending on the season and time of day during which field surveys are conducted, some species may not be detected due to temporal species variability. The biological survey conducted on the project site was diurnal and performed in the late summer/early fall season, and a small portion of the study area, located beyond the parcel boundary, was not surveyed on-foot; therefore, some species of annual plants, invertebrates, reptiles, migratory birds, and crepuscular and nocturnal wildlife may not have been detected.

ENVIRONMENTAL SETTING/EXISTING BIOLOGICAL CONDITIONS

REGIONAL CONTEXT

The property is located within the Metro-Lakeside-Jamul Segment of the South County MSCP Subarea Plan, adopted October 22, 1997 (SanGIS Interactive Maps 2006), in a Pre-Approved Mitigation Area (PAMA) and Biological Resource Core Area (BRCA) (County of San Diego 2004).

PHYSICAL CHARACTERISTICS

The project site is situated on private land, near the top of a hill at an approximate elevation of 1,435 feet above mean sea level. Underlying surficial geology is mapped as Mesozoic granitic rock (Strand 1962), and the majority of the soils within the study area are mapped as Cieneba-Fallbrook rocky

sandy loam, 30 to 65 percent slopes, with the exception of the southeastern corner, which is mapped as Vista rocky coarse sandy loam, 15 to 30 percent slopes (Bowman *et. al.* 1973 and NRCS 2006). The project site is predominantly surrounded by native habitat to the north, south, and west; and rural developments to the east.

VEGETATION TYPES AND FLORA

The majority of the property was burned in the 2003 San Diego fires (pers. com. based on conversation between M&A biologist Roland Sosa and property owner), and the moderately open vegetation canopy is still showing some signs of this burn; however, the current overall quality of the vegetation is considered to moderate to high based on the higher component of native species re-emerging within the habitat.

Five vegetation types were identified within the study area during the biological surveys (Table 2; Figure 2). A list of floral species observed within the study area is provided as Appendix 1.

Table 2. Summary of the Vegetation Types Present within the Study Area

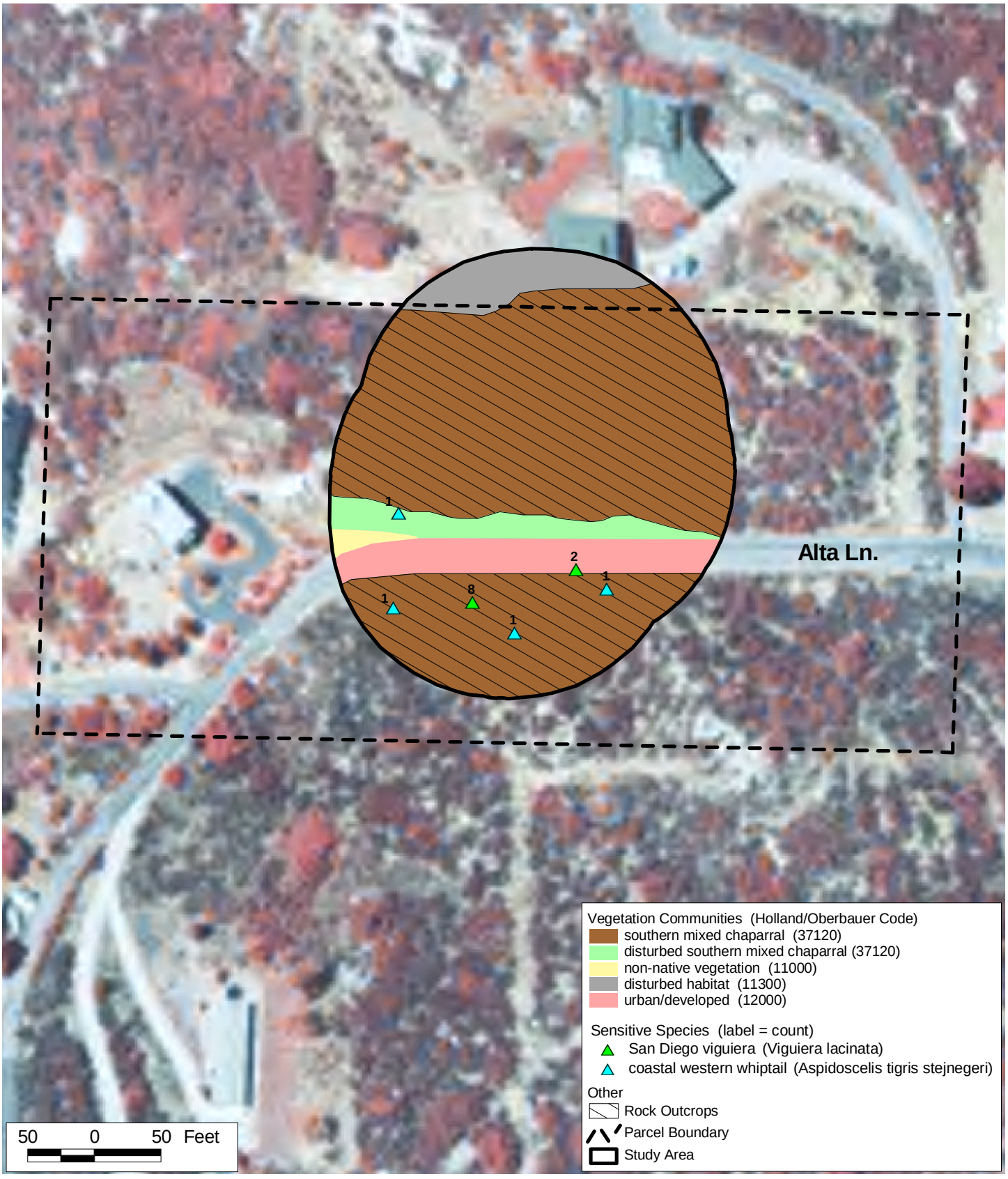
Vegetation Type	Holland/Oberbauer Code	MSCP Tier Habitat Type	Acreage
Southern Mixed Chaparral	37120	Upland, Tier III	1.43
Disturbed Southern Mixed Chaparral	37120	Upland, Tier III	0.12
Non-Native Vegetation	11000	Upland, Tier IV	0.02
Disturbed Habitat	11300	Upland, Tier IV	0.11
Urban/Developed Land	12000	Upland, Tier IV	0.17
		Total:	**1.85**

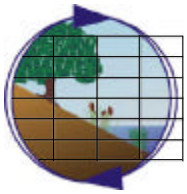
Southern Mixed Chaparral

Most of the study area is comprised of relatively open southern mixed chaparral and rock outcrops are scattered throughout the habitat. The vegetation is dominated by chamise (*Adenostoma fasciculatum*), chaparral whitehorn (*Ceanothus leucodermis*), saw-toothed goldenbush (*Hazardia squarrosa grindelioides*), mission manzanita (*Xyloccocus bicolor*), and broom baccharis (*Baccharis sarothroides*). Additional species observed include laurel sumac (*Malosma laurina*), spiny redberry (*Rhamnus crocea*), and coastal deerweed (*Lotus scoparius* var. *scoparius*).

Disturbed Southern Mixed Chaparral

Disturbed southern mixed chaparral is found in the southern half of the study area immediately north of Alta Lane. This area appears to have been previously used as a dirt access road but is now showing signs of re-emergent growth. The sparse vegetation is dominated by coastal deerweed and saw-toothed goldenbush.





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Biological Resources Map

T-Mobile® Wireless Facility,
SD06894 Scott Residence Project

Figure 2

Non-Native Vegetation

A small portion of the study area, along the western edge, is comprised of non-native vegetation dominated by cape honeysuckle (*Tecomaria capensis*). Additional species observed include oleander (*Nerium oleander*), jade plant (*Crassula argentea*), and bougainvillea (*Bouganvillea brasiliensis*).

Disturbed Habitat

The northern edge of the study area is comprised of disturbed land. Most of this area is off the landowners property and consists of bare ground denude of vegetation. This area appears to be used as a farm animal corral.

Urban/Developed Land

Areas mapped as urban/developed land consist of Alta Lane, an east-to-west paved road in the southern portion of the study area.

WILDLIFE HABITAT AND FAUNA

Locally common species of butterflies, reptiles, birds, and mammals were noted utilizing the native chaparral habitat and non-native vegetation for foraging and/or cover during the biological surveys. A list of faunal species observed or detected is provided as Appendix 2.

Butterfly species observed included marine blue (*Leptotes marina*), Behr's metalmark (*Apodemia mormo virgulti*), and common white (*Pontia protodice*).

Although no amphibian species were observed during the biological surveys, it is likely that regionally common species such the garden slender salamander (*Batrachoseps major major*) may be present on the project site.

One common reptile species, side-blotched lizard (*Uta stansburiana*), was observed. In addition, regionally common reptile species such as western fence lizard (*Sceloporus occidentalis*), southern pacific rattlesnake (*Crotalus oreganus helleri*), gophersnake (*Pituophis catenifer*), northern red diamond rattlesnake (*Crotalus ruber*), and western skink (*Eumeces skiltonianus*) are likely to occur on the project site.

Common bird species observed included, mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), red-tailed hawk (*Buteo jamaicensis*), rock wren (*Salpinctes obsoletus*), and common raven (*Corvus corax*).

Common mammal species observed included rabbit (*Sylvilagus* sp.) and California ground squirrel (*Spermophilus beecheyi*). Though relatively few mammal species were observed during the biological surveys, it is expected that species such as Virginia opossum (*Didelphis virginiana*), northern raccoon (*Procyon lotor*), western spotted skunk (*Spilogale gracilis*), southern mule deer (*Odocoileus hemionus fuliginata*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), and coyote (*Canis latrans*) may also occur on the project site.

SPECIAL-STATUS SPECIES

CEQA guidelines §15380 (Title 14, Chapter 3, Article 20) defines "endangered, rare or threatened species" as "species or subspecies of animal or plant or variety of plant" listed under the Code of Federal Regulations, Title 50, Part 17.11 or 17.12 (Volume 1, Chapter I) or California Code of Regulations, Title 14, Sections 670.2 or 670.5 (Division 1, Subdivision 3, Chapter 3), or a species not included in the above listings but that can be shown to be "endangered" meaning "when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" or "rare" meaning "although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the Federal Endangered Species Act". CEQA guidelines Appendix G generally refers to species that fall under the above criteria as "special-status species".

The County of San Diego BMO (Sec. 86.508) further defines "sensitive species" as:

(a) Those species that are included on generally accepted and documented lists of plants and animals of endangered, threatened, candidate or of special concern by the Federal Government, or State of California;
(b) Those species listed as Critical Populations of Sensitive Plant Species within the MSCP Subarea, Rare, Narrow Endemic Animal Species; Narrow Endemic Plant Species, and Sensitive Plant Species as defined by this ordinance; and/or
(c) Those species that meet the definition of "Rare or Endangered Species" under Section 15380 of the State CEQA Guidelines.

Therefore, for the purposes of this report, species listed under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA) would be considered "sensitive" under CEQA; and species designated as California Special Concern species or Fully Protected species by the California Department of Fish and Game (CDFG), as rare by the California Native Plant Society (CNPS), as Special Plants or Animals by the CNDDB, or as sensitive by the County of San Diego, may be considered "sensitive" under CEQA if they were to meet the above criteria.

Table 3 summarizes the presence and/or potential for special-status species to occur within the study area, based on the list provided in the County of San Diego 1st Iteration Project Review Letter, dated August 12, 2004.

Special-Status Flora

One sensitive plant species was identified within the study area during the biological surveys: San Diego viguiera (*Viguiera laciniata*) (Figure 2). Approximately 10 individual San Diego viguiera, designated as rare on the CNPS List 4 and as sensitive on the County of San Diego Sensitive Plants List D, were detected near the southern portion of the study area.

Special-Status Fauna

Three sensitive animal species were identified during the biological surveys: coastal western whiptail (*Aspidoscelis tigris stejnegeri*), turkey vulture (*Cathartes aura*), and Cooper's hawk (*Buteo jamaicensis*). Four coastal western whiptails, designated as a California Special Concern Species by

the CDFG and as sensitive on the County of San Diego Sensitive Animals List (Group B), were observed foraging in the southern mixed chaparral (Figure 2). A Cooper's hawk, designated as a California Special Concern Species by the CDFG and as sensitive on the County of San Diego Sensitive Animals List (Group A), was observed perched on a rock outcropping south of Alta Lane and east of the study area; and a turkey vulture, designated as sensitive on the County of San Diego Sensitive Animals List (Group A), was observed flying over the study area.

Table 3. Summary of Special-Status Species Present or with a Potential to be Present within the Study Area

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
PLANTS					
Acanthomintha ilicifolia	San Diego thorn mint	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/clay; elevation 10-935 meters; annual herb; blooms April to June	ESA: FT CESA: SE CNPS List: 1B County List: A	Covered; Narrow Endemic	Low Potential; Although chaparral is present on-site, there are no grassy openings within the chaparral and the on-site soils do not have any clay soil components.
Arctostaphylos otayensis	Otay manzanita	Chaparral, cismontane woodland/metavolanic, elevation 275-1700 meters. Shrub (evergreen), blooms Jan-March	CNPS List: 1B County List: A	Covered	Low Potential; Although chaparral is present on-site, the on-site soils are not San Miguel-Exchequer rocky silt loam which are associated with this species.
Artemisia palmeri	San Diego sagewort	Chaparral, coastal scrub, riparian scrub, riparian woodland/sandy mesic; elevation 15-915 meters. Scrub (deciduous), blooms May-September	CNPS List: 4 County List: D	Not Covered	Low Potential; Although chaparral is present on-site, there is a lack of mesic habitat and riparian drainages where this species is typically found.
Astragalus deanei	Dean's milk-vetch	Chaparral, coastal scrub, riparian scrub; elevation 75-670 meters. Perennial herb, blooms February-May	CNPS List: 1B County List: A	Not Covered	High Potential; The on-site soils are the same as the soils where the Tecate population of this species is found; on-site chaparral is sufficiently dense to provide the partial shade that this species prefers.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Astragalus douglasii var. *perstrictus*	Jacumba milk-vetch	Chaparral, cismontane woodland, valley and foothill grassland/rocky; elevation 900-1370 meters. Perennial herb, blooms April-June	CNPS List: 1B County List: A	Not Covered	Not Expected; The project site is situated below the elevation at which this species is typically found and this species is more often found in cismontane woodlands.
Baccharis vanessae	Encinitas baccharis	Chaparral (maritime, sandstone); elevation 60-720 meters; shrub (deciduous), blooms August-November	ESA: FT CESA: SE CNPS List: 1B County List: A	Covered; Narrow Endemic	Low Potential; On-site soils match the soils in areas where this species occurs; however, since the site has burned in recent times, the chaparral present is not mature which is, commonly associated with this species.
Berberis fremontii	Fremont barberry	Chaparral, Joshua tree "woodland", pinyon and juniper woodland/rocky; elevation 840-1850 meters. Shrub (evergreen), blooms April-June	CNPS List: 3 County List: C	Not Covered	Not Expected; This species is typically found in high desert chaparral and the project site is not situated in this type of habitat.
Berberis nevinii	Nevin's barberry	Chaparral, cismontane woodland, coastal scrub, riparian scrub/sandy or gravelly; elevation 295-825 meters. Shrub (evergreen), blooms March-April	ESA: FE CESA: SE CNPS List: 1B County List: A	Not Covered; Narrow Endemic	Not Expected; This species is typically found in chaparral with strong desert affinities, which the project site does not have.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Calochortus dunnii	Dunn's mariposa lily	Closed-cone coniferous forest, chaparral/ gabbroic or metavolanic, rocky; elevation 380-1830 meters. Perennial herb (bulbiferous), blooms April-June	DFG: SR CNPS List: 1B County List: A	Covered; Narrow Endemic	Not Expected; This species is mostly associated with rocky openings in chaparral or grassland/chaparral ecotones and is restricted to metavolcanic and gabbroic derived soils; Most likely, the project site does not have suitable habitat or soils for this species to occur in.
Caulanthus simulans	Payson's jewel-flower	Chaparral, coastal scrub/sandy granitic; elevation 90-2200 meters. Annual herb, blooms March-June	CNPS List: 4 County List: D	Not Covered	Not Expected; This species is mostly associated with Sheephead rocky fine sandy loam soils of which, the project site does not have.
Ceanothus cyaneus	Lakeside ceanothus	Closed-cone coniferous forest, chaparral; elevation 235-755 meters. Shrub (evergreen), blooms February-March	CNPS List: 1B County List: A	Covered; Narrow Endemic	High Potential; This species is known to occur in the same unincorporated community of Crest, as the project site is situated in.
Chamaebatia australis	southern mountain misery	Chaparral (gabbroic or metavolanic); elevation 300-700 meters. Shrub (evergreen), blooms November-May	CNPS List: 4 County List: D	Not Covered	Not Expected; This species is restricted to metavolcanic and gabbroic derived soils of which the project site does not have.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Chorizanthe leptotheca	peninsular spineflower	Chaparral, coastal scrub, lower montane, coniferous forest/alluvial fan, granitic; elevation 300-1900 meters. Annual herb, blooms May-August	CNPS List: 4 County List: D	Not Covered	Not Expected; This species is typically found in xeric openings in chamise chaparral of which is not found on the project site.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Chaparral; elevation 30-550 meters. Shrub (evergreen), blooms April-June	CNPS List: 1B County List: A	Not Covered	Not Expected; This species is known to occur in southern mixed chaparral; however, the project site does not consist of mesic north-facing slopes, which is where this species is typically found.
Cupressus forbesii	Tecate cypress	Closed-cone coniferous forest, chaparral; elevation 255-1500 meters. Tree (evergreen)	CNPS List: 1B County List: A	Covered	Low Potential; This species is known to occur in southern mixed chaparral, which occurs on the project site; however, San Miguel-Exchequer soils are most often associated with this species, which is not present on-site.
Dudleya variegata	variegated dudleya	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools/clay; elevation 3-550 meters. Perennial herb, blooms May-June	CNPS List: 1B County List: A	Covered; Narrow Endemic	Low Potential; Although this species is found in chaparral, it most often associated with chamise chaparral not southern mixed chaparral as is found on the project site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Geraea viscida	sticky geraea	Chaparral (often in disturbed areas); elevation 450-1700 meters. Perennial herb, blooms May-June	CNPS List: 2 County List: B	Not Covered	Not Expected; Mostly found in high desert chaparral openings where chamise is common of which, neither is found on site.
Harpagonella palmeri	Palmer's grapplinghook	Chaparral, coastal scrub, valley and foothill grassland/clay; elevation 20-830 meters. Annual herb, blooms March-May	CNPS List: 4 County List: D	Not Covered	Not Expected; This species typically found in clay vertisols with open grassy slopes or in Diegan coastal sage scrub, which neither is found on-site.
Horkelia truncata	Ramona horkelia	Chaparral, cismontane woodland/clay; elevation 400-1300 meters. Perennial herb, blooms May-June	CNPS List: 1B County List: A	Not Covered	Low Potential; Most often, found in chamise chaparral. The project site is comprised of southern mixed chaparral not chamise chaparral.
Lathyrus splendens	pride-of-California	Chaparral; elevation 200-1525 meters. Perennial herb, blooms March-June	CNPS List: 4 County List: D	Not Covered	Moderate Potential; Although the project site has the appropriate soils, Cieneba-Fallbrook rocky sandy loams, the on-site habitat is not dominated by chamise or black sage, which is typical of the chaparral type in which this species is found.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Lepechinia cardiophylla	heart-leaved pitcher sage	Closed-cone coniferous forest, chaparral, cismontane woodland; elevation 555-1370 meters. Shrub, blooms April-July	CNPS List: 1B County List: A	Narrow Endemic	Low Potential; Although this species is found in chaparral, it is mostly associated with Friant rocky fine sandy loams and Exchequer soils of which these soils are not present on-site.
Lepechinia ganderi	Gander's pitcher sage	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland/gabbroic or metavolcanic; elevation 305-1005 meters. Shrub, blooms June-July	CNPS List: 1B County List: A	Covered; Narrow Endemic	Low Potential; Although this species is found in chaparral, it is typically found in San Miguel-Exchequer rocky silt loam soil of which, is not present on-site
Linanthus bellus	desert beauty	Chaparral (sandy); elevation 1000-1400 meters. Annual herb, blooms April-May	CNPS List: 2 County List: B	Not Covered	Not Expected; This species is typically found in high desert chaparral. The project site does not represent this type of habitat.
Lotus crassifolius var. *otayensis*	Otay Mountain lotus	Chaparral (metavolcanic, often in disturbed areas); elevations 915-1005 meters. Perennial, blooms May-August	CNPS List: 1B County List: A	Not Covered	Low Potential; Although this species can be found in chaparral it is mostly associated with *Ceanothus* species of which, *Ceanothus leucodermis* was detected on-site. Also, metavolcanic soils are not present on-site which is often associated with this species.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Machaeranthera juncea	rush-like bristleweed	Chaparral, coastal scrub; elevation 240-1000 meters. Perennial herb, blooms June-January	CNPS List: 4 County List: D	Not Covered	Not Expected; This species is mostly associated with chamise chaparral and on Acid Igneous rock lands of which, neither soils nor vegetation exist on-site.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	Chaparral, cismontane woodland; elevation 300-1190 meters. Perennial herb (rhizomatous), blooms June-August	CNPS List: 1B County List: A	Not Covered	Low Potential; Although this species is found in chaparral, it is mostly associated with chaparral understory beneath mature stands of chamise and in San Miguel-Exchequer rocky silt loam, of which, neither of these soils or vegetation exist on site.
Nolina cismontana	cismontane nolina/ chaparral nolina	Chaparral, coastal scrub/sandstone or gabbro; elevation 140-1275 meters. Shrub (evergreen), blooms May-July	CNPS List: 1B County List: A	Not Covered	Low Potential; This species is usually associated with Las Posas fine sandy loam, which is also not present on-site.
Nolina interrata	Dehesa nolina/ Dehesa bear grass	Chaparral (gabboric, metavolcanic, or serpentinite); elevation 185-855 meters. Perennial herb, blooms June-July	CESA: SE CNPS List: 1B County List: A	Not Covered	Moderate Potential; This species is found in open southern mixed chaparral that is present on-site but most populations of this species occur in Las Posas stony fine sandy loam of which is not present on-site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Piperia cooperi	Cooper piperia/ Cooper's rein orchid/ chaparral rein orchid	Chaparral, cismontane woodland, valley and foothill grassland; elevation 15-1585 meters	CNPS List: 4 County List: D	Not Covered	High Potential; Project site is dominated by southern mixed chaparral.
Piperia leptopetala	narrow-petaled rein orchid	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, chaparral; elevation 380-2225 meters	CNPS List: 4 County List: D	Not Covered	High Potential; Project site is dominated by southern mixed chaparral.
Polygala cornuta var. *fishiae*	Fish's milkwort	Chaparral, cismontane woodland, riparian woodland; elevation 100-1100 meters. Shrub (deciduous), blooms May-August	CNPS List: 4 County List: D	Not Covered	Not Expected; Although this species can be found in chaparral, it is mostly associated with chamise chaparral and Blasingame stony loam, which are not present on the project site.
Quercus cedrosensis	Cedro's Island oak	Closed-cone coniferous forest, chaparral, coastal scrub; elevation 255-355 meters. Tree (evergreen), blooms April-June	CNPS List: 2 County List: A	Not Covered	Not Expected; Although this species can be found in chaparral it is mostly associated with *Ceanothus* species of which, *Ceanothus leucodermis* was detected on-site. In addition, metavolcanic soils are not present on-site, which is often associated with this species.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Ribes canthariforme	Moreno currant	Chaparral; elevation 340-1200 meters. Shrub (deciduous), blooms February-April	CNPS List: 1B County List: A	Not Covered	Not Expected; Although this species is found in chaparral, this species is associated with Acid Igneous rock, which is not present on-site. In addition, this species is associated with massive, exposed boulders, which also, are not present on-site.
Rupertia rigida	Parish's rupertia/ Parish psoralea	Chaparral, cismontane woodland, lower montane coniferous forest; elevation 700-2500 meters. Perennial herb, blooms June-July	CNPS List: 4 County List: D	Not Covered	Not Expected; Although this species is found in chaparral, it is typically associated with montane chaparral and not southern mixed chaparral, which is present on-site.
Satureja chandleri	San Miguel savory	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland/rocky, gabbroic or metavolcanic; elevation 120-1075 meters. Perennial herb, blooms March-July	CNPS List: 1B County List: A	Covered	Not Expected; This species is found in chaparral and oak woodland of which both are found on-site; however, the on-site soils lack gabbroic and metalvolcanic derived soils, which are typically associated with this species.
Senecio ganderi	Gander's ragwort/ Gander's butterweed	Chaparral (burns, gabbroic outcrops); elevation 400-1200 meters. Perennial herb, blooms April-May	DFG: SR CNPS List: 1B County List: A	Covered	Low Potential; The site lacks any a substantial chamise component, which is common where this species is found. In addition, the on-site soils

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Streptanthus campestris	southern jewel-flower	Chaparral, lower montane coniferous forest, pinyon and juniper woodland/ rocky; elevation 900-2300 meters. Perennial herb, blooms May-July	CNPS List: 1B County List: A	Not Covered	Not Expected; This species is associated with juniper woodland or high desert transitional chaparral of which neither habitat is found on-site.
Tetracoccus dioicus	Parry's tetracoccus	Chaparral, coastal scrub; elevation 165-1000 meters. Shrub (deciduous), blooms April-May	CNPS List: 1B County List: A	Covered	Low Potential; Although this species is associated with chaparral, it is most often found in chamise chaparral, which is not found on-site. In addition, this species shows a preference for Las Posas soils, which is not found on-site.
INVERTEBRATES					
Euphydryas editha quino	quino checkerspot butterfly	Open grassland and openings within shrub habitats that support Dwarf Plantain (*Plantago erecta*)	ESA: FE Other: Special Animal County Group: A	Not Covered (MSCP Subarea Plan amendment proposed to cover species)	Low Potential; The property is located within a USFWS recommended butterfly survey area.
Lycaena hermes	Hermes copper	Openings in chaparral, associated with the larval host plant Spiny Redberry (*Rhamnus crocea*), adults feed on nectar from Flat-top Buckwheat	Other: Special Animal County Group: A	Not Covered	Low Potential; Although the on-site habitat is characterized as chaparral, spiny redberry and flat-top buckwheat were not detected on-site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
AMPHIBIANS					
Bufo californicus	arroyo toad	Shallow pools, open sand, and gravel flood terraces of intermittent to perennial streams; may also occupy adjacent upland communities within 1.2 km	ESA: FE DFG: CSC Other: Special Animal County Group: A	Covered; Narrow Endemic	Not Expected; No shallow pools, open sand, or gravel flood terraces exist on-site.
Spea hammondii	western spadefoot	Prefers sandy or gravelly soil in grasslands, sage scrub, open chaparral, and pine-oak woodlands; grasslands with shallow temporary pools are optimal	DFG: CSC Other: Special Animal County Group: B	Not Covered	Not Expected; Topographically, the site is situated on top of a hill with few areas that would allow water to pond and collect
REPTILES					
Anniella pulchra pulchra	silvery legless lizard	Shows a preference for areas of leaf litter and loose soil along washes, beach sand dunes, open scrub and woodland, and sandy benches along alluvial fans	DFG: CSC Other: Special Animal County Group: B	Not Covered	Low Potential; It is known from chaparral areas but it is very uncommon
Aspidoscelis hyperythra beldingi	orange-throated whiptail	Sage scrub (and chaparral), prefers sandy areas with patches of brush and rocks; may be associated with buckwheat and Black Sage	DFG: CSC Other: Special Animal County Group: B	Covered	Moderate Potential; This species is often found in chaparral and a species of sage is found on-site.
Aspidoscelis tigris stejnegeri	coastal western whiptail	Coastal Sage Scrub, chaparral, and grasslands	Other: Special Animal County Group: B	Not Covered	Present; This species was detected in the chaparral.
Charina trivirgata	rosy boa	Rocky outcrop areas within chaparral and sage scrub	Other: Special Animal County Group: B	Not Covered	High Potential; The project site is covered with areas of rock outcroppings
Coleonyx switaki	barefoot gecko	Rocky, boulder strewn desert foothills in rock crevices	CESA: ST County Group: B	Not Covered	Not Expected; This species is typically found in desert foothills with rock crevices, which neither is found on-site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Coleonyx variegatus abbotti	San Diego banded gecko	Areas of rock outcrop within sage scrub and chaparral	Other: Special Animal County Group: A	Not Covered	High Potential; The project site is scattered with rock outcrops among southern mixed chaparral.
Crotalus ruber ruber	northern red diamond rattlesnake	Occupies rocky outcrops and areas of heavy brush or rugged terrain in chaparral, sage scrub, or desert scrub on both coastal and desert slopes, usually below 4000 feet	DFG: CSC County Group: B	Not Covered	High Potential; The project site is scattered with rock outcrops among southern mixed chaparral.
Diadophis punctatus similis	San Diego ringneck snake	Chaparral, forest, and grasslands, most common in moist, rocky areas	Other: Special Animal County Group: B	Not Covered	High Potential; Although the project site does not have and moist areas, the residential developments may contribute moisture needed for this species. In addition, the project site is scattered with rock outcrops among southern mixed chaparral.
Phrynosoma coronatum blainvillii	San Diego horned lizard	Chaparral, sage scrub, oak woodlands, and grasslands; sometimes occurs along seldom used dirt roads where native ant species are prevalent	DFG: CSC Other: Special Animal County Group: B	Covered	High Potential; The project site is dominated by chaparral and native black ants were observed on-site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Salvadora hexalepis virgultea	coast patch-nosed snake	Chaparral and sage scrub; may require mammal burrows or woodrat nests for overwintering	DFG: CSC County Group: B	Not Covered	High Potential; The project site is scattered with rock outcrops which create areas for potential woodrat nests; In addition, the site is dominated by southern mixed chaparral
BIRDS					
**Accipiter striatus*	sharp-shinned hawk	Mixed woodlands near open areas, prefers but not restricted to riparian habitats	DFG: CSC Other: Special Animal County Group: A	Not Covered	Moderate Potential; Nearby lands/properties have large non-native vegetation.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Rocky hillsides supporting sparse, low scrub or chaparral, sometimes mixed with grasses	DFG: CSC Other: Special Animal County Group: A	Covered	High Potential; The on-site habitat is ideal for this species to occur with rocky hillsides and southern mixed chaparral as the dominant habitat.
Amphispiza belli belli	Bell's sage sparrow	Relatively open chaparral (*e.g.* Chamise Chaparral) and sage scrub; Non-fragmented, contiguous areas on relatively flat terrain appear to be preferred	DFG: CSC Other: Special Animal County Group: A	Not Covered	High Potential; This species is most often found on in open chaparral such as the chaparral on-site; In addition, recovering chaparral after a burn (such as the project site) is good habitat for this species.
**Aquila chrysaetos*	golden eagle	Nests in cliffs (or trees), found in generally mountainous or hilly terrain; forages in grasslands, deserts, and shrubby habitats	DFG: CSC, FP Other: Special Animal County Group: A	Covered: Narrow Endemic	High Potential; The project site is situated atop a hill in sparse chaparral, which is typical foraging habitat for this species.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Cathartes aura	turkey vulture	Open habitats with protected large trees, snags, rock outcrops, or cliffs for nesting	County Group: A	Not Covered	Present
**Cypseloides niger*	black swift	Forages over almost any terrain or habitat; nests in moist crevices or caves on sea cliffs or cliffs near waterfalls in deep canyons. Not located in the San Diego County area	DFG: CSC Other: Special Animal County Group: B	Not Covered	Not Expected; The project site does not have the appropriate breeding habitat for this species and this species is rarely seen in San Diego County
**Lanius ludovicianus*	loggerhead shrike	Found within grassland or open habitats with bare ground and sparse shrub and/or tree cover for nesting and perching	DFG: CSC Other: Special Animal County Group: A	Not Covered	Moderate Potential; The chaparral on-site has been recently burned and is somewhat sparse and open.
MAMMALS					
Antrozous pallidus	Pallid bat	Utilizes open forest and grassland habitats for feeding and multiple habitats for roosting	DFG: CSC Other: Special Animal County Group: B	Not Covered	Low Potential; Since the area has been recently burned there are portions of the site that are less dense than others which could be used as foraging habitat. In addition, the house could function as a nocturnal roosting site.
Bassariscus astutus	ringtail	Chaparral or forested habitat in close association with rock outcrops and riparian habitat. This species typically forages on ground, among rocks, in trees; usually near water. Uses hollow trees, logs, snags, cavities in talus and other rocky areas, and other recesses as cover.	County Group: B	Not Covered	Low Potential; The habitat on-site is not suitable for typical cover sites that this species may use. Although, there are rock outcroppings on-site, there are few large trees and there is no water nearby the site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Chaetodipus californicus femoralis	Dulzura (California) pocket mouse	Found in areas of fine sandy ground, (Chaparral/Coastal Sage Scrub)	DFG: CSC Other: Special Animal County Group: B	Not Covered	Moderate Potential; The on-site vegetation is mapped as southern mixed chaparral and there were an abundance of small mammal burrows on-site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	Found in coastal sage scrub	DFG: CSC Other: Special Animal County Group: B	Not Covered	Low Potential; The on-site vegetation is mapped as southern mixed chaparral.
Corynorhinus townsendii	Townsend's western big-eared bat	Cave rooster, feeds in forest/woodland habitats or along habitat edges within 15 km of roost site	DFG: CSC Other: Special Animal County Group: B	Not Covered	Low Potential; This species prefers mesic habitats and typically feeds along habitat edges, which this project site offers neither.
Eumops perotis	western mastiff bat	Extensive open areas with abundant roost locations in rock outcrops, (found where oaks and chaparral occur)	DFG: CSC Other: Special Animal County Group: B	Not Covered	Moderate Potential; Although the project site does not have suitable rock outcrops (with areas for bats to hang), there is the potential for roosting sites nearby and this species feeds over chaparral areas.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Puma concolor	mountain lion	Chaparral or woodland habitats with requisite areas of riparian vegetation and interspersions of rock outcrops and irregular terrain where deer are present	DFG: CSC County Group: B	Covered	Moderate Potential; The project site sits atop a hill with many rural developments nearby. A drainage/creek is north of the project site with open areas to the west, potentially functioning as a movement corridor.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Relatively open chaparral and sage scrub and grasslands	DFG: CSC Other: Special Animal County Group: B	Not Covered	Moderate Potential; The chaparral on-site is relatively open due to recent fires.
Myotis ciliolabrum	small-footed myotis	Uses a variety of habitats, prefers open stands in forests/woodlands, brushy habitats, and riparian areas	Other: Special Animal County Group: B	Not Covered	Low Potential; This species is most often found near water, of which there none near the site. In addition, it prefers open stands of forests of which none exist on-site.
Myotis evotis	long-eared myotis	Uses multiple habitats for roosting (mainly crevices), forages in oak/coniferous forests, may require water	Other: Special Animal County Group: B	Not Covered	Not Expected; The on-site habitat is not suitable for foraging or roosting. In addition, this species requires water of which, there is none near the project site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Myotis thysanodes	fringed myotis	Uses multiple habitats for roosting (mainly crevices), feeds in coniferous forests	Other: Special Animal County Group: B	Not Covered	Not Expected; The on-site habitat is not suitable for foraging or roosting. In addition, this species requires water of which, there is none near the project site.
Myotis volans	long-legged myotis	Uses multiple habitats for roosting (mainly crevices), feeds in coniferous forests	Other: Special Animal County Group: B	Not Covered	Not Expected; The on-site habitat is not suitable for foraging or roosting. In addition, this species requires water of which, there is none near the project site.
Myotis yumanensis	Yuma myotis	Utilizes multiple habitats (primarily woodlands and forests) but forages over water	Other: Special Animal County Group: B	Not Covered	Not Expected; The on-site habitat is not suitable for foraging or roosting. In addition, this species requires water of which, there is none near the project site.
Neotoma lepida intermedia	San Diego desert woodrat	Chaparral, particularly abundant in areas of rock outcrops	DFG: CSC Other: Special Animal County Group: B	Not Covered	High Potential; This species is known to occur in chaparral.
Nyctinomops macrotis	big free-tailed bat	Cliff rooster, prefers rugged, rocky canyons, feeds in multiple habitats including over water	DFG: CSC Other: Special Animal County Group: B	Not Covered	Not Expected; The on-site habitat is not suitable for foraging or roosting. In addition, this species is often found foraging over water of which, there is none near the site.

Scientific Name	Common Name	Habitat	Sensitivity Listings[1]	MSCP Status	Occurrence Potential On Project Site
Odocoileus hemionus fuliginata	southern mule deer	Chaparral and open forest habitats with abundant edge and interspersed riparian habitat	County Group: B	Covered	High Potential; In addition to the on-site habitat appropriate for this species, the landowner has seen this species on-site.
Onychomys torridus ramona	southern grasshopper mouse	Variety of habitats, including grasslands, sage scrub and chaparral, where friable soils occur	DFG: CSC Other: Special Animal County Group: B	Not Covered	High Potential; Chaparral is found throughout the project site and some areas have friable soils.
Perognathus longimembris brevinasus	Los Angeles little pocket mouse	Found in areas of fine sandy ground, (Coastal Sage Scrub)	DFG: CSC Other: Special Animal County Group: B	Not Covered	Not Expected; No coastal sage scrub found on-site.
Taxidea taxus	American badger	Grasslands and open scrub habitats	DFG: CSC Other: Special Animal County Group: B	Covered	Not Expected; Chaparral is the only vegetation community found on-site.

[1]Sensitivity Listings

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years

California Endangered Species Act (CESA) Listing Codes: SE = State-listed as Endangered; ST = State-listed as Threatened; SCE = State candidate for listing as Endangered; SCT = State candidate for listing as Threatened; SCD = State candidate for de-listing; SR = California Rare Species

California Department of Fish and Game (DFG) Listing Codes: CSC = California special concern species; FP = California fully protected species

California Native Plant Society (CNPS) Listing Codes: List of Species Designation: 1A = Plants presumed extinct in California; 1B = Plants rare, threatened, or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list)

Other Listing Codes: Special Plants/Animals = A general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (*e.g.*, wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (*e.g.,* The

World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society)
County of San Diego Listing Codes: Plants; List A = Plants rare, threatened or endangered in California and elsewhere; List B = Plants rare, threatened or endangered in California but more common elsewhere; List C = Plants which may be quite rare, but need more information to determine their true rarity status; List D = Plants of limited distribution and are uncommon, but not presently rare or endangered; Animals; Group A = Animals rare, threatened or endangered in California and elsewhere; Group B = Animals rare, threatened or endangered in California but more common elsewhere
*Sensitivity status applies to nesting/wintering sites only (or burrow sites for the burrowing owl)
References: CDFG 2006a through d; County 2004

HABITAT CONNECTIVITY AND WILDLIFE CORRIDORS

Although the property does not function as a wildlife corridor, the overall value of the wildlife habitat on the property is considered to be high based on the direct connectivity to adjacent native habitat to the north, south, and west.

PROJECT EFFECTS ANALYSIS

CEQA guidelines §15065 (a) (Title 14, Chapter 3, Article 5) states, "A project may have a significant effect on the environment" if:

- "The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory."
- "The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals."
- "The project has possible environmental effects which are individually limited but cumulatively considerable."

For the purposes of this report, all potential project impacts are analyzed for significance under CEQA; however, even if an impact is determined not to be biologically significant under CEQA, mitigation may be recommended in accordance with the MSCP for regional land conservation planning purposes in the proposed project area.

DIRECT IMPACT

CEQA guidelines §15358 (a) (1) and (b) (Title 14, Chapter 3, Article 20) define a "direct impact or primary effect" as "effects which are caused by the project and occur at the same time and place" and relate to a "physical change" in the environment.

Vegetation Types/Wildlife Habitat

The proposed 35-foot high faux pine tree with 12 panel antennas, 10 foot by 16 foot equipment shelter, surrounding 8-foot high block retaining wall, and landscape path, as well as the required 30-foot fuel modification zone would result in permanent, direct impacts to southern mixed chaparral (Table 4, Figure 3). It is anticipated that the trenching for placement of the underground coaxial cable, power line, and telco conduit would result in an approximate 10-foot wide temporary, direct impact to southern mixed chaparral. Impacts to southern mixed chaparral would require habitat-based mitigation to ensure conformance with the County of San Diego MSCP Subarea Plan and BMO.

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Biological Impacts Map

T-Mobile® Wireless Facility,
SD06894 Scott Residence Project

Figure 3

Table 4. Summary of Vegetation Community Direct Impacts Resulting from the Proposed Project

Vegetation Type	MSCP Tier Habitat Type	Acreage (%) On-site	Acreage (%) Impacted	Acreage (%) Remaining
Southern Mixed Chaparral	Upland, Tier III	1.43 (77%)	0.19 (10%)	1.24 (67%)
Disturbed Southern Mixed Chaparral	Upland, Tier III	0.12 (7%)	0.03 (2%)	0.09 (5%)
Non-Native Vegetation	Upland, Tier IV	0.02 (1%)	0.00 (0%)	0.02 (1%)
Disturbed Habitat	Upland, Tier IV	0.11 (6%)	0.00 (0%)	0.11 (6%)
Urban/Developed Land	Upland, Tier IV	0.17 (9%)	0.00 (0%)	0.17 (9%)
Total:		**1.85 (100%)**	**0.22 (12%)**	**1.63 (88%)**

HABITAT CONNECTIVITY

The proposed project is not expected to preclude the movement of wildlife on the property to adjacent native habitat.

SPECIAL-STATUS SPECIES

The proposed project would not result in direct impacts to the San Diego viguiera identified within the study area.

The proposed project could result in direct impacts to coastal western whiptail, turkey vulture, and Cooper's hawk through direct loss of habitat; however, potential impacts would not be expected to "substantially reduce the habitat … [or] reduce the number or restrict the range … of the species to a level affecting the species' population stability in the region" and would not be significant under CEQA.

INDIRECT IMPACTS

CEQA guidelines §15358 (a) (2) and (b) (Title 14, Chapter 3, Article 20) define an "indirect impact or secondary effect" as "effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable" and relate to a "physical change" in the environment.

The proposed project has been designed with a 35-high faux pine tree, tan-colored retaining block wall, and landscaping to blend in with the natural environmental and avoid potential impacts to raptors and/or migratory birds from collisions with telecommunications towers. These avoidance measures are expected to reduce potential indirect impacts to a level below significance under CEQA.

CUMMULATIVE IMPACTS

CEQA guidelines §15355 (a) (Title 14, Chapter 3, Article 20) define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

The MSCP was designed to compensate for the loss of biological resources throughout the program's region; therefore, projects that conform to the MSCP, as specified in the County of San Diego MSCP Subarea Plan, RPO and BMO, would not result in cumulatively considerable impacts for those biological resources adequately covered by the program. The aforementioned direct and indirect impacts resulting from the proposed project should not be cumulatively considerable if the Project Mitigation Measures are implemented to ensure conformance with the County of San Diego MSCP Subarea Plan, RPO, and BMO.

MITIGATION MEASURES

Implementation of the following mitigation measures should reduce impacts to a level below significance under CEQA, and ensure conformance with the County of San Diego MSCP Subarea Plan, RPO, and BMO.

1. Since T-Mobile® would be leasing private property for the construction and maintenance of the proposed wireless telecommunications facility, on-site mitigation for impacts to southern mixed chaparral would not be feasible; therefore, these impacts shall be mitigated through the off-site purchase of in-kind habitat at a 1:1 or 1.5:1 replacement ratio, inside or outside of a BCRA, respectively (Table 5).

Table 5. Habitat-Based Mitigation Ratios

Vegetation Type	MSCP Tier Habitat Type	Acreage Impacted (inside PAMA)	Mitigation Ratio		Mitigation Acreage	
			Inside BCRA	Outside BCRA	Inside BCRA	Outside BCRA
Southern Mixed Chaparral	Upland, Tier III	0.19	1:1	1.5:1	0.19	0.28
Disturbed Southern Mixed Chaparral	Upland, Tier III	0.03	1:1	1.5:1	0.03	0.05
Total:		**0.22**			**0.22**	**0.33**

If you have any questions concerning this biological impact analysis letter report, please do not hesitate to contact me at (619) 884-5524 or by e-mail at djensen@merkelinc.com.

Sincerely,

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Keith W. Merkel
Principal Consultant/County Certified Biologist

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APPENDIX 1. FLORA SPECIES OBSERVED ON-SITE

Habitat Types:

Southern Mixed Chaparral	=	C
Disturbed Southern Mixed Chaparral	=	D
Non-Native Vegetation	=	V
Disturbed Land	=	L
Urban/Developed Land	=	U

* = Denotes non-native flora species.

Scientific Name	Common Name	Habitat
GYMNOSPERMS		
Pinaceae - Pine Family		
Pinus sp.	pine	V
DICOTYLEDONS		
Aizoaceae – Fig-Marigold Family		
**Carpobrotus edulis* (L.)N.E. Brit.	hottentot-fig	C
Anacardiaceae - Sumac Family		
Malosma laurina (Nutt.)Abrams	laurel sumac	C
Rhus ovata S. Wats.	sugar bush	C
**Schinus molle* L.	Peruvian pepper tree	V
Toxicodendron diversilobum (Torrey & A. Gray)Greene	western poison oak	C
Apocynaceae - Dogbane Family		
**Nerium oleander* L.	oleander	V
Asteraceae - Sunflower Family		
Artemisia californica Less.	California sagebrush	C
Baccharis sarothroides Gray	broom baccharis	C, D
Hazardia squarrosa ssp. *grindelioides* (DC.)Clarke	saw-toothed goldenbush	C, D
**Helianthus annuus* L.	western sunflower	C
Heterotheca grandiflora Nutt.	telegraph weed	C, D
Solidago californica Nutt.	California goldenrod	C
Stephanomeria virgata Benth. ssp. v*irgata*	virgate wreath-plant	C
Viguiera laciniata Gray	San Diego County viguiera	C
Bignoniaceae - Bignonia Family		
Tecomaria capensis Spach	cape honeysuckle	V
Brassicaceae - Mustard Family		
**Brassica nigra* (L.)Koch	black mustard	C
Cactaceae - Cactus Family		
**Opuntia ficus-indica* (L.)Miller	Indian-fig	V
Caprifoliaceae - Honeysuckle Family		
Lonicera subspicata var. *denudata* Rehd.	San Diego honeysuckle	C
Crassulaceae - Stonecrop Family		
**Crassula argentea* Thunb.	jade plant	V
**Crassula* sp.	stonecrop	V

Scientific Name	Common Name	Habitat
Cuscutaceae - Dodder Family		
Cuscuta californica Hook & Arn. var. *californica*	Witch's hair	C
Ericaceae - Heath Family		
Xylococcus bicolor Nutt.	mission manzanita	C
Euphorbiaceae - Spurge Family		
Chamaesyce albomarginata (Torrey & Gray)Small	rattlesnake spurge	C, D
Fabaceae - Pea Family		
Lotus scoparius (Nutt.)Ottley var. *scoparius*	coastal deerweed	C
Hydrophyllaceae - Waterleaf Family		
Phacelia sp.	phacelia	C
Lamiaceae - Mint Family		
Salvia mellifera.	black sage	C
Onagraceae - Evening-Primrose Family		
Epilobium canum (Greene) P. H. Raven ssp. *latifolium* (Hook.) P. H. Raven	broad-leaved California fuchsia	C
Rhamnaceae - Buckthorn Family		
Ceanothus leucodermis Greene	chaparral whitethorn	C
Rhamnus crocea Nutt.	spiny redberry	C
Rosaceae - Rose Family		
Adenostoma fasciculatum Hook & Arn.	chamise	C
Prunus ilicifolia (Nutt.)Walp. ssp. *ilicifolia*	holly-leafed cherry	C
Rutaceae - Rue Family		
Citrus sp.	orange tree	C
Cneoridium dumosum (Nutt.) Baill.	bushrue	C
MONOCOTYLEDONS		
Arecaceae - Palm Family		
**Washingtonia robusta* H. Wendl.	Mexican fan palm	V
Cactaceae - Cactus Family		
Opuntia littoralis (Engelm.)Ckll.	coast prickly-pear	V
Lemnaceae - Duckweed Family		
**Bouganvillea brasiliensis*	bougainvillea	V

Scientific Name	Common Name	Habitat
Liliaceae - Lily Family		
Hesperoyucca whipplei Torr.	our Lord's candle	C
Poaceae - Grass Family		
**Bromus madritensis* L. ssp. *rubens* (L.)Husn.	red brome	C, D
**Cortaderia jubata* (Lemoine)Stapf	pampas grass	C

APPENDIX 2. FAUNA SPECIES OBSERVED OR DETECTED ON-SITE

Habitat Types:

Southern Mixed Chaparral	=	C
Disturbed Southern Mixed Chaparral	=	D
Non-Native Vegetation	=	V
Disturbed Land	=	L
Urban/Developed Land	=	U

Abundance Codes:

A = Abundant: Almost always encountered in moderate to large numbers in suitable habitat and the indicated season.

C = Common: Usually encountered in proper habitat at the given season.

U = Uncommon: Infrequently detected in suitable habitat. May occur in small numbers or only locally in the given season.

R = Rare: Applies to species that are found in very low numbers.

'Numbers' indicate the number of individuals observed during the recent survey work.

Status Codes (birds only):

M = Migrant: Uses the site for brief periods of time, primarily during the spring and fall months.

R = Year-round resident: Probable breeder on-site or in the vicinity.

S = Spring/summer resident: Probable breeder on-site or in the vicinity unless combined with transient status.

T = Transient: Uses site irregularly in summer but unlikely to breed. Not a true migrant and actual status often poorly known.

W = Winter visitor: Does not breed locally.

V = Casual vagrant: Not expected; out of normal geographic or seasonal range and by definition rare.

* = denotes introduced species

Common Name	Scientific Name	Habitat	Abundance	Status
BUTTERFLIES				
Pieridae (Whites and Sulfurs)				
checkered (=common)white	*Pontia protodice*	C		
Lycaenidae (Gossamer-wing Butterflies)				
marine blue	*Leptotes marina*	C, V		
Riodinidae (Metalmarks)				
Behr's metalmark	*Apodemia mormo virgulti*	C		
REPTILES				
Phrynosomatidae				
side-blotched lizard	*Uta stansburiana*	C, V		
Teiidae (Whiptails and Relatives)				
coastal western whiptail	*Aspidoscelis tigris stejnegeri*	C		
BIRDS				
Cathartidae (American Vultures)				
turkey vulture	*Cathartes aura*	fly-by	C	T, R
Accipitridae (Hawks and Harriers)				
Cooper's hawk	*Accipiter cooperii*	C	C	M, R
red-tailed hawk	*Buteo jamaicensis*	fly-by	C	R, M, W
zone-tailed hawk	*Buteo albonotatus*	fly-by	R	W, V
Columbidae (Pigeons and Doves)				
mourning dove	*Zenaida macroura*	fly-by	C	R
Corvidae (Jays, Magpies, and Crows)				
common raven	*Corvus corax*	fly-by	C	R
Fringillidae (Finches)				
house finch	*Carpodacus mexicanus*	fly-by	A	R
Troglodytidae (Wrens)				
rock wren	*Salpinctes obsoletus*	C	C	R

Common Name	Scientific Name	Habitat	Abundance	Status
MAMMALS				
Leporidae (Rabbits and Hares)				
rabbit	*Sylvilagus* sp.	C		
Sciuridae (Squirrels, Chipmunks, and Marmots)				
California ground squirrel	*Spermophilus beecheyi*	C		